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April 20, 2012

Jocelyn Boyd
Chief Clerk and Administrator
Public Service Commission of South Carolina
101 Executive Center Dr., Suite 100
Columbia, SC 29210

Re: Docket No. 2009-226-E, Residential Smart $aver Program

Dear Ms. Boyd:

Environmental Defense Fund, Natural Resources Defense Council, the South Carolina Coastal Conservation League, Southern Alliance for Clean Energy and the Southern Environmental Law Center (collectively, the "Environmental Intervenors"), through counsel, respectfully submit the following comments and recommendations concerning Duke Energy Carolinas, LLC's ("DEC" or "the Company") proposed changes to the Residential Smart $aver Program (the "Program"), which DEC filed on April 10, 2012.[1]

DEC seeks Commission approval to add attic insulation and air sealing, duct sealing, duct insulation, central air conditioner tune-up, and heat pump tune-up to the Program. Based on their review of the Company's filing and communications with DEC staff, Environmental Intervenors generally support DEC's proposed changes to the Program. Environmental Intervenors are pleased that the Company is enhancing its residential program offerings to capture additional energy efficiency opportunities from building envelope and heating, ventilation and air conditioning ("HVAC") measures. Environmental Intervenors believe that going forward, such filings could be substantially improved by providing program impact and participation projections, and measure offerings. As discussed below, we recommend that the Company (i) provide consistent cost-test scores for energy efficiency programs both before and after program modification, and (ii) provide kWh savings and participation by measure for program modifications. We also recommend that the Company (iii) consider additional energy efficiency measures for existing residential customers. Notwithstanding these recommendations, we urge the Commission to approve these modifications without delay.

I. It is difficult to compare the cost-effectiveness of the existing Residential Smart $aver program with that of the proposed modified program.

In this filing, the Company provides cost-effectiveness test scores for the modified Residential Smart $aver program, however, the Company does not provide the cost-effectiveness test scores for the existing Program. DEC filed updated program cost-effectiveness test scores

[1] These comments were prepared with the assistance of Natalie Mims, Energy Policy Manager at Southern Alliance for Clean Energy.

on December 21, 2001 in North Carolina,[2] in which the Company provided two cost test scores for the Residential Smart $aver program. Both of the programs described in the cost-test score update filed in North Carolina focus on lighting, thus making it difficult to compare the existing cost-test scores to the scores in this proposed program modification. The various cost-effectiveness test scores are shown in Table 1, below.

Table 1. DEC Cost Test Scores for Residential Smart $aver Program

	UCT	TRC	RIM	Participant
E7 Sub 831 2011 Smart $aver update – property manager CFL	3.45	2.38	0.79	6.24
E7 Sub 831 Smart $aver update – discount CFL	3.17	2.66	0.78	9.13
Program modification – high incentive	2.09	1.79	0.70	4.29
Program modification-low incentive	1.82	1.79	0.67	4.50

Environmental Intervenors recommend that in the future, the Company provide program cost-effectiveness test scores before and after program changes.

II. Impact and participation rates of the new measures are not apparent in this application.

There is a lack of clear impact and participation data by measure for the Residential Smart $aver program. DEC filed its application for approval of rider 3 on October 11, 2011. In that application, the Company projected that it would save ~72 GWh from the Residential Smart $aver program for the entire DEC system in 2012.[3] Adjusting this to reflect South Carolina-only savings (approximately 27% of total savings), the Company projected that it would save ~20 GWh hours with the Residential Smart $aver program before adding the four measures proposed in this application.

In this filing, DEC estimates that, in 2012, the Company will save 21.4 GWh of energy with the Residential Smart $aver program. These projections are shown in Table 2, below.

[2] E7 Sub 831, update to cost-test scores. Filed 12/21/2011. Based on conversations with the Company, these are the most recent cost-test scores for the Residential Smart $aver program. There have not been updated cost-test scores filed in South Carolina since 2009-226-E.
[3] 2011-420-E, Exhibit 10.

Table 2. DEC Savings Projections (GWh) for Residential Smart $aver Program

	Rider 3 application (2011-420-E)	Residential Smart Saver program changes (2009-226-E)
Smart Saver for Residential Customers	20	21.4

There is no information about what contributes to the 1.4 GWh difference between DEC's estimate in its Rider 3 filing and the savings estimate in this application. While it may be a conservative estimate that the Company will only achieve 1.4 GWh of savings with the four proposed measures, there is no support in this application indicating what measure savings or participation rates are. The Company only provides an annual and cumulative savings and participation rate for all measures offered in the entire Residential Smart $aver program.

DEC's application bundles all of the participants together into an annual number for each year of the program's implementation. There is no detail provided about where participation increases or decreases measure up in the application, or what the participation rates are for the measures that DEC is proposing to add to the Residential Smart $aver program. However, the Company is projecting that it will have declining participation in the program in years one through four, and then will increase participation in year five, as shown in Table 3, below. There is no explanation for why this will occur.

Table 3. Incremental Participation Rates for Residential Smart $aver Program

	Incremental participation	Delta
Year 1 (2012)	450,674	N/A
Year 2 (2013)	437,915	(12,759)
Year 3 (2014)	273,804	(164,111)
Year 4 (2015)	134,975	(138,829)
Year 5 (2016)	161,567	26,592

Environmental Intervenors encourage the Company to include clear impact and participation data by measure in its future program change filings to allow interested parties to understand how DEC anticipates the program changes, including kWh savings and participation by measure, will impact their program and portfolio savings.

III. Participant incentive levels are aligned with similar programs in South Carolina, but additional measures could be offered.

Environmental Intervenors reviewed DEC's program incentives in North and South Carolina and Progress Energy Carolinas' ("PEC") Home Energy Improvement Program[4] incentives to determine whether the two companies are offering their customers comparable

[4] Residential Service Home Energy Improvement Program HEIP-4, Docket No. 2009-190-E (filed January 6, 2012).

incentives for similar measures. DEC appears to be offering lower incentives in South Carolina than in North Carolina and also does not appear to be offering an incentive on high efficiency heat pumps or air conditioners in South Carolina.

Table 4. Incentives by Measure for DEC and PEC Existing Residential EE Programs

	DEC Residential Smart $aver incentive (SC)	DEC Residential Smart $aver incentive (NC)	PEC Home Energy Improvement Program
Attic insulation and air sealing	$250	$250 -$400	$500
Duct sealing	$100	$100 -$200	$190[5]
Duct insulation	$100	$75 - $350	None?
CAC tune up	$60	$50 -$60	$100
Heat pump tune up	$125	$50-$125	None?
HE heat pump or AC	None	$300	$300
HE room AC	None	None	$25
Heat pump water heater	None	None	$350
HE geothermal heat pump	None	None	$300

Environmental Intervenors recommend that DEC explore opportunities to offer additional energy efficiency measures to residential customers. There are no incentives offered for plug loads or consumer electronics, and there are not many advanced lighting options for their residential customers. DEC could include the measures that PEC is already using such as the incentive for a room air-conditioner, heat pump water heater, and a geothermal heat pump.

IV. Conclusion and Recommendations

In conclusion, Environmental Intervenors are pleased that the Company is expanding its existing residential energy efficiency offerings. Based on the foregoing, Environmental Intervenors recommend that in future program modification filings, the Company routinely (i) provide consistent cost-effectiveness test scores for energy efficiency programs both before and after program modification, and (ii) provide kWh savings and participation by measure for program modifications. We also recommend that the Company (iii) consider additional energy

[5] Duct leakage repair measure may be inclusive of insulation and sealing.

efficiency measures for existing residential customers. Notwithstanding these recommendations, Environmental Intervenors support the proposed changes and urge the Commission to approve these modifications without delay.

s/Gudrun Thompson

cc: Parties of record